

عنوان مقاله:

Artificial intelligence in the colonoscopy: Improving medical diagnostic of the colorectal cancer

محل انتشار:

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خلاصه مقاله:

Introduction: Colorectal cancer (CRC) is a development of abnormal cells either in the colon or rectum. CRC is the ۳rd leading cause of death in ۲۰۱۸. It first arises during pre-cancerous stages called polyps. The detection and removal of a polyp are important to increase the survival rate of the patient. Although the various method of polyp detection is available, colonoscopy remains the standard in detection and removal of polyps. Several studies showed how Artificial Intelligence (AI) used in colonoscopy such as in detecting polyps, assessing physicians and predicting patients with a high risk of CRC. This study will describe the involvement of AI in colonoscopy and its role in improving the survival rates of patients with CRC. **Material and Methods:** Search for research articles conducted from various resources including PubMed and Google Scholar. The keywords of 'Artificial Intelligence' and 'Colonoscopy' were used. ۶ research articles about the use of AI in colonoscopy and were published in the interval time of ۲۰۱۷ – ۲۰۱۹ were selected. Such interval time was chosen due to the recent emergence of AI in colonoscopy. **Results:** Studies of AI in colonoscopy showed how it improves medical diagnostic of CRC in several ways, including in improving adenoma detection rate (ADR), finding physicians with a high Adenoma Detection Rate (ADR) and predicting patients with high risk of CRC. However, the use of AI also associated with limitations derived either from the model, datasets or study design. **Conclusion:** A Combination of AI and colonoscopy has the potential to improve the diagnostic accuracy and survival rate of patients with CRC. Further study would be required to find the best possible cases for model, datasets .and study design in order to overcome the limitations and eventually achieve the best possible results

کلمات کلیدی:

Colorectal Cancer, Colonoscopy, AI, Machine Learning, Deep Learning

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